EPITHELIAL SALIVARY GLAND MALIGNANCIES
COIMBRA’S PORTUGUESE CANCER INSTITUTE RECENT EXPERIENCE

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ABSTRACT

Retrospective study with analysis of the patients with histological diagnosis of malignant epithelial disease of the salivary glands between 2000 and 2010 treated in Coimbra’s Portuguese Cancer Institute. Complete information, location, risk factors, complementary evaluation, treatment modalities, histological features, outcome, follow-up and failures were analyzed.

Presented 55 cases, aged between 23 and 86 years old. 56% male, 75% were located at the parotid, 25% in the submandibular and 6% in other salivary glands. Only 2 patients weren’t submitted to surgical excision. Most patients were in Stage II and IV. There were 12 (22%) adenoid cystic carcinoma, 10 (18%) mucoepidermoid carcinomas, 10 (18%) adenocarcinomas. 7 (13%) acinic cell carcinoma and 16 (29%) of other entities. 55% underwent radiation therapy and 18% chemotherapy. Survival rates at 1 year were 95% and at 5 years 78%. Failures were observed in 42% (local and distant).

The analysis of these cases are in line with the literature, being the stage of the tumor the principal prognosis factor in salivary gland neoplasms, even when dealing with different grade histology entities. Radiation seems to be an important option in controlling local disease.

INTRODUCTION

The pathology of the salivary glands is essentially inflammatory and neoplastic. There are different histological subtypes with very different biological behaviors and diagnosis difficulties relate to the broadly morphological spectrum.

Patients’ aged 23-86 years old. Mean age 60 yrs. Age distribution as Fig. 1.

No gender preference (56% Male; 44% Female).

Time of symptoms determined in 37 months; mean 13.2 months with 4 of long time of evolution (14 undetermined).

Location of lesion as Fig. 2.

Associated symptoms: pain - 10 cases (18%); Facial palsy - 8 cases (15%); Palatal palsy (5%); Sialorrhoea (2%).

Exposure to risk factors such as cigarette smoke, radiation, alcohol consumption, diabetes and immunosuppression rarely reported, sporadic cases of diabetes and smokers; bone (60%)

Evaluation ultrasound – 26 cases (47%); CT – 40 (72%); FNAB – 45 (82%) with 33% of false negatives and 13% of undetermined.

Histological Types as Fig. 3.

Also classified as: high grade 24 (45%), low grade 16 (30%), undetermined 9 (17%). Histologically there were positive ganglions in 18 cases (34%).

RESULTS

All patients submitted to surgical resection, (excepted the 2 cases staged as IVA, palliation resection only); from conservative sialadenectomy to wider excisions some with nerve repair and skin or mucosal substitution reconstruction flap.

The association with cervical lymphadenopathy was performed in 28 patients (53%), being or more extended independent on intraoperative: initial stage, location, or therapeutic decision after the initial surgery.

Adjuvant therapy with RT: 25 (45%) patients did not perform any type of radiation. 24 (44%) underwent postoperative RT (including 2 or 2 local recurrence) over salivary gland and / or bone.

2 (4%) patients had local palliative RT and 7 (13%) palliative RT for distance metastasis (cranial or bone).

8 patients (16%) were referred for postoperative RT, but that was not performed (exceeded optimal delay for various reasons).

The doses ranged from 50.4/28 to 68.4 Gy/38fr, mostly from 54 Gy/38fr over the loco and neck.

10 patients (18%) had cytotoxic therapy (70% Carboplatin + Platinoucir + Calcium Cilinate Protocol) for distant metastasis (6), locally advanced disease (3) and recurrence (1).

Dissease recurrence: from the patients who underwent surgery, 13 (25%) had local recurrence and 4 (6%) also had lymph node recurrence.

Distinct metastasis were observed throughout the follow-up or as early stage in 16 patients (28%).

The sites were mostly lung metastasis (11 - 73%) and bone (60 - 40%) – Fig. 5.

8 patients had performed localised disease, but developed distant metastases.

(5) (56%) were in Stage IV A.

The histological types were varied without preference for a particular entity.

6a (11%) had positive invasion on histological examination (3 unspecified).

7 (7%) had invaded surgical margins (22% safe margins).

7 (78%) had postoperative RT (only 1 should and did not receive adjuvant RT).

The overall median follow-up of these patients this evaluation was 40 months.

The minimum time of survival in this series was 2 months and a maximum of 130 months.

The Global Survival Rates were:

* Year - 42 out of 44 (95%)
* 5 years - 16 out of 23 (71%)
* 10 years - 3 out of 8 (38%)

The survival rates were compared in the size of the lesion (larger and smaller than 4 cm), histological grade (high, medium and low grade) and clinical stage – results in Fig. 6a, 6b, and 6c.

METHODS AND MATERIALS

Retrospective study. Analyses of information contained in the clinical files of patients with salivary gland pathology treated in IPO Coimbra.

Selected those with histological diagnosis (code) of malignant neoplasms of a salivary gland.

Excluded: coding errors, very deficient information (practically nonexistent), inaccessible files.


The TNM classification of the American Joint Committee for Cancer.

DISCUSSION

In this series, the most frequent lesion was adenoid cystic carcinoma and secondary mucoepidermoid carcinoma (MEC). - Fig. 1.

In the International MECs from 2003, 35% of all malignant salivary gland and mimics a plenographic adenoma - local pain, neurological changes and rapid growth suggest high-grade lesion.

Internationally, there is no prevalence of gender nor obvious tendency to occur at particular late ages; they are common in adults, in the 5 th / 6 th decades (rare in children).

With regard to research on possible risk factors, it is our opinion that the fact of no data actively researched, probably conditioned the results.

Cytology as a diagnostic method can give important information, but the results are very dependent on a meticulous technique, that although easy it is not trivial. In this series there was a high rate of false negatives, which may be related to this factor.

Surgery is the treatment of choice for neoplastic salivary pathology. Alternative therapeutic options are presented as adjuvants.

Postoperative RT appears to reduce the risk of locoregional recurrence and slightly increase overall survival by controlling residual disease.

The different histological types may respond significantly different to chemotherapy agents (chemotherapy), but there is no concrete evidence-based recommendations that support the routine use of adjuvant chemotherapy. Therefore, generally, it is generally accepted that the use of chemotherapy for palliation of symptoms due to metastatic or locally recurrent disease, as soon as possible.

The evaluation of survival rates is only indicative due to small sample size. We can accept that better rates are related to low histological grade and smaller clinical stage.

CONCLUSIONS

In this analysis, tumor stage appears to be the most important prognostic factor in malignant epithelial salivary neoplasia. Radiation therapy has an important role as adjunctive therapy. Relapse rates are high in the long term and distant metastases can emerge even with locally controlled disease.

REFERENCES